



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,166	09/27/2001	David W. Payton	HRL068	3437
28848	7590	03/20/2006	EXAMINER	
TOPE-MCKAY & ASSOCIATES 23852 PACIFIC COAST HIGHWAY #311 MALIBU, CA 90265			HARPER, KEVIN C	
			ART UNIT	PAPER NUMBER
			2666	
DATE MAILED: 03/20/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/966,166

Applicant(s)

PAYTON, DAVID W.

Examiner

Kevin C. Harper

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-96 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-10, 14, 15, 29-32, 35-38, 43, 44, 58-61, 64, 65, 68, 69, 71, 79-82, 85 and 86 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 11-13, 16-28, 33, 34, 39-42, 45-57, 62, 63, 66, 67, 70, 72-78, 83, 84 and 87-96 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

Response to Arguments

Applicant's arguments filed January 9, 2006 concerning the Horie reference have been fully considered but they are not persuasive. Applicant argued that Horie does not disclose modifying an address code based on the direction the message was received. However, in col. 6, lines 21-25 of Horie, when the header arrives, the relative node number becomes (0, +2). Figs. 3A, 3B, 10-11 and 14-15 show that the receive direction of a message is known (fig. 14, item 42 and fig. 15, item 47) and the header of the received message is decremented according to the receive direction (col. 12, lines 9-22; col. 14, lines 18-21).

Applicant's arguments with respect to the claim objections and drawing objection have been fully considered and are persuasive. The previous objections have been withdrawn.

Claim Objections

1. Claims 5 and 17 are objected to because in claim 5, line 6 and in claim 17, line 5, "whereby the messages" and "whereby a messages", respectively, should be --whereby messages-- ("the messages" lacks antecedent basis). Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 6, 8-10, 14-15, 30-31, 37-38, 43-44, 59-60, 64-65, 68-69 are rejected under 35 U.S.C. 102(b) as being anticipated by Horie et al. (US 5,157,692).

Art Unit: 2666

2. Regarding claims 1-2, 6, 14-15, 30-31, 43-44, 59-60 and 68-69, Horie discloses a system or a system node having means for performing a method for messaging within several nodes (fig. 3A and 3B) where each node includes a processor, a memory, and a directional communication interface (fig. 3B, item 5; fig. 10, items 9-11; fig. 3A, item 4). The method comprises receiving a message including an address code (fig. 4, xs, xrcid, ys, yrcid) and corresponding data (fig. 4; bits. 0-15; col. 2, lines 33-41; col. 4, line 63 through col. 5, line 4), where the address code includes a relative target address of the not to which the message is to be sent (fig. 4, xrcid, yrcid), processing the received address code to determine if the code indicates that the current node is the intended recipient of the message (col. 6, lines 21-29), modifying the address code based on the direction from which the message was received, the address code in the message and the direction to which the message is to be retransmitted (col. 6, lines 21-29), retransmitting the message including the modified address code in the direction it is to be transmitted (col. 6, lines 13-17), and repeating the method steps until the message reached the intended node through expiration (col. 6, lines 26-29).
3. Regarding claims 8-9, 37-38 and 64-65, the message is retransmitted in a subset of directions toward the destination depending on the address code and the direction the message was received (col. 6, lines 9-17).
4. Regarding claim 10, the recited optional step need not be performed by the method of Horie (MPEP 2106(C), fourth paragraph).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2666

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 32, 61, 71, 80-82 and 85-86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horie et al (US 5,157,692) in view of Spinney (US 5, 390,173).

5. Regarding claims 80-81, Horie discloses a system or a system node having means for performing a method for messaging within several nodes (fig. 3A and 3B) where each node includes a processor, a memory, and a directional communication interface (fig. 3B, item 5; fig. 10, items 9-11; fig. 3A, item 4). The method comprises receiving a message including an address code (fig. 4, xs, xrcid, ys, yrcid) and corresponding data (fig. 4; bits. 0-15; col. 2, lines 33-41; col. 4, line 63 through col. 5, line 4), where the address code includes a relative target address of the not to which the message is to be sent (fig. 4, xrcid, yrcid), processing the received address code to determine if the code indicates that the current node is the intended recipient of the message (col. 6, lines 21-29), modifying the address code based on the direction from which the message was received, the address code in the message and the direction to which the message is to be retransmitted (col. 6, lines 21-29), retransmitting the message including the modified address code in the direction it is to be transmitted (col. 6, lines 13-17), and repeating the method steps until the message reached the intended node through expiration (col. 6, lines 26-29).

6. However, Horie does not disclose that the method is a computer program product recorded on a recording medium. Spinney discloses a routing algorithm embodied on a readable medium (figs. 1A and 2; col. 4, lines 32-35; note: software). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a routing algorithm

Art Unit: 2666

embodied as a computer program on a recordable medium in the invention of Horie in order to provide a flexibly implemented/modified control structure for the method.

7. Regarding claims 85-86, in Horie the message is retransmitted in a subset of directions toward the destination depending on the address code and the direction the message was received (col. 6, lines 9-17).

8. Regarding claims 3, 32, 61, 71 and 82, Horie discloses a message transmission system (fig. 3A). However, Horie does not disclose that the packets contain a time stamp and halting the packet transmission when an amount of time expires. Spinney discloses a time stamp for a packet (fig. 5, item 82; col. 10, lines 51-55; col. 11, lines 9-14) where a packet is discarded if the time stamp expires (col. 5, lines 38-40). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to discard a packet when a time stamp expires in the invention of Horie in order to remove packets from the network that have experienced excess delay (Spinney, col. 11, lines 11-12).

Claims 6-7 and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horie et al (US 5,157,692) in view of Iwamura et al. (US 2002/114286).

Regarding claims 6-7 and 35-36, Horie discloses a message transmission system (fig. 3A). However, Horie does not disclose a message destined for several recipients. Iwamura discloses a network having multicasting (figs. 1 and 31; para. 37; para. 275, lines 16-25; para. 305). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have several recipients of a message in the invention of Horie in order to efficiently route data to several intended users (Iwamura para. 2, last five lines).

Claims 29, 58 and 79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horie et al (US 5,157,692) in view of Thorson (US 5,533,198).

Art Unit: 2666

9. Regarding claims 29, 58 and 79, Horie discloses a message transmission system (fig. 3A). However, Horie does not disclose three-dimensional routing. Thorson discloses three-dimensional routing (figs. 3, 5 and 7). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have three-dimensional routing in the invention of Horie in order to provide an efficient network topology for routing (Thorson, col. 1, lines 33-49).

Allowable Subject Matter

10. Claims 4-5, 11-13, 16-28, 33-34, 39-42, 45-57, 62-63, 66-67, 70, 72-78, 83-84 and 87-96 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and rewritten to overcome any claim objections noted above.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2666

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 571-272-3166. The examiner can normally be reached weekdays from 11:00 AM to 7:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To, can be reached at 571-272-7629. The centralized fax number for the Patent Office is 571-273-8300. For non-official communications, the examiner's personal fax number is 571-273-3166 and the examiner's e-mail address is kevin.harper@uspto.gov.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications associated with a customer number is available through Private PAIR only. For more information about the PAIR system, see portal.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin C. Harper

March 15, 2006



CHI PHAM
SUPERVISORY PATENT EXAMINER
ELECTRONIC BUSINESS CENTER

3/16/06